WHAT WE CLAIME:

1. A cache control method in a computer system, in which a storage device, a node device including a disk device for cache and clients are connected together, for controlling the cache in the disk device, comprising the steps of:

in the storage device or the client, sending attribute information of data to the node device, the data being relayed by the node device, the attribute information indicating as to whether or not the data is allowed to be cached in the disk device;

in the node device, judging as to whether or not the data to be relayed is allowed to be cached in the disk device, based on the attribute information; and

relaying the data, which has been judged as non-cacheable, without process of the cache in the disk device.

2. The cache control method according to claim 1, further comprising the steps of:

in the node device, encrypting the data to be relayed on the node device and writing the encrypted data in the disk device; and

decoding the data that is read out from the disk device and sending the decoded data to the storage device or the client, in response to a read out command of the data, which is stored in the disk device.

3. A node device that includes a disk device for cache and relays transmission and receipt of data between a storage device and clients, comprising:

an attribute information input module that inputs attribute information of the data to be relayed, which indicates as to whether or not the data is allowed to be cached in the disk device;

a judgment module that judges as to whether or not the data to be relayed is allowed to be cached in the disk device, based on the attribute information; and

a cache control module that relays the data, which has been judged as non-cacheable, without process of the cache in the disk device.

4. A node device according to claim 3, further comprising:

a volatile memory for the cache, wherein the cache control module comprises: a memory control module that caches the data in the volatile memory regardless of the data attribute, cacheable or non-cacheable; and

a transfer control module that migrates the data from the volatile memory to the disk device except for the data, which has been judged as non-cacheable, when a predetermined condition for the migration is met.

5. A node device according to claim 4, further comprising:

an encryption module that encrypts the data to be relayed and writing the encrypted data in the disk device; and

a decoding module that decodes the data that is read out from the disk device and sends the decoded data to the storage device or the client, in response to a read out command of the data, which is stored in the disk device.

6. The node device according to claim 5, further comprising:

an attribute information input module that inputs attribute information of the data to be relayed, which indicates as to whether or not the data is required to be encrypted;

a judgment module that judges as to whether or not the data to be relayed is required to be encrypted, based on the attribute information; and

a cache control module that caches the data, which has been judged to require the encryption, employing the encryption module and the decode module.

7. A node device according to claim 5, further comprising:

a key data management module that receives key data, which is used for the encryption and the decoding of the data, from the storage device and manages the key data in the volatile memory.

8. A node device according to claim 7, wherein the attribute information is input in association with the data during the relay of the data.

9. A node device according to claim 7, wherein the attribute information input module previously acquires and manages association between respective data storage blocks and the attribute information.

10. A node device according to claim 7, wherein the attribute information notifies occurrence of an error in the client.

11. A storage device that provides a client with data via a node device including a disk device, comprising:

an attribute information management module that manages attribute information of the data, which indicates as to whether or not the data is allowed to be cached in the disk device, or whether or not the data is required to be encrypted when being written in the disk device; and

an attribute information notification module that notifies the node device of the attribute information.

12. A storage device according to claim 11, wherein the attribute information notification module notifies the attribute information in association with the data when the data is provided.

13. A storage device according to claim 11, wherein the attribute information notification module notifies the node device of association between respective data storage blocks and the attribute information prior to the supply of the data.

14. A storage device according to claim 12, which is connected with a plurality of node devices that are capable of encryption of the data when writing the data in the disk device, the storage device further comprising:

a condition judgment module that judges as to whether or not a predetermined condition for sending key data to any one of the plurality of node devices is met, the key data being used for the encryption; and

a key data transmission module that transmits the key data to the node device.

15. A data source device that provides other computers with data via a node device including a disk device for cache, comprising:

a judgment module that judges as to whether or not the data to be provided is allowed to be cached in the disk device, based on a predetermined condition; and

a transmission control module that transmits the data, which has been judged as cacheable, to the node device, and transmits the data, which has been judged as non-cacheable, to other computers without going through the node device.

16. A data source device according to claim 15, further comprising:

an attribute information management module that previously manages attribute information of the data to be provided, which indicates as to whether or not the data is cacheable, wherein the judgment module judges the data attribute, cacheable or non-cacheable, based on the attribute information.

17. A data source device according to claim 16, wherein the judgment module judges the data as non-cacheable in case of occurrence of a software error in the data source device.

18. A data source device according to claim 17, further comprising:

an address management module that manages address information used for transmitting the data to the other computers, wherein the transmission control module switches the destination of the data from the address of the node device to the address information, which is managed in the address management module, when the data has been judged as non-cacheable.

19. A computer readable recording medium in which a computer program is recorded, the computer program causing a computer to control operations of a node device that includes a disk device for cache and relays data between a storage device and clients, the computer program causing the node device to attain the functions of:

means for inputting attribute information indicating as to whether or not the data to be relayed is cacheable;

means for judging as to whether or not the data is cacheable, based on the attribute information; and

means for relaying the data, which has been judged as non-cacheable, without process of the cache in the disk device.